

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An implantable fluid management system comprising:
a first tube member having a first end, a second end, and a length which defines a lumen therethrough, the first tube member carrying a fluid from a first body cavity to a second body cavity;

a pump fluidly coupled to the first tube member, wherein the pump can be actuated;
and an integrated controller for controlling actuation of the pump,
wherein the pump is disposed in a housing made of a biocompatible material, and
having an anti-infective coating, wherein the system includes one or more anti-infective coatings disposed on a surface of the pump.

2. (Original) The system of claim 1, wherein the integrated controller is located in the pump.

3. (Previously Presented) The system of claim 1, wherein the pump is programmed to be actuated when pressure in the first body cavity exceeds a predetermined level.

4. (Previously Presented) The system of claim 1, wherein the pump is programmed to be actuated when pressure in the second body cavity exceeds a predetermined threshold.

5. (Currently Amended) The system of claim 1, wherein the pump is programmed to be actuated when chemical composition in the first body cavity exceeds a predetermined threshold, and wherein the chemical composition is detected by an implanted sensor.

6. (Currently Amended) The system of claim 1, wherein the pump is programmed to

be actuated when chemical composition in the second body cavity exceeds a predetermined threshold, and wherein the chemical composition is detected by an implanted sensor.

7. (Previously Presented) The system of claim 1, further comprising:
a second tube member having a length which defines a lumen therethrough; and
a second pressure sensing element placed on the second tube,
wherein the second pressure sensing element is configured to influence control of the pump.

8.-11. (Canceled)

12. (Withdrawn) An implantable fluid management system comprising:
a first tube member having a first end, a second end, and a length which defines a lumen therethrough, the first tube comprising an opening at the first end or along the length;
a pump fluidly coupled to the first tube member, wherein the pump can be activated; and
a filter configured to filter flow through the opening.

13. (Withdrawn) The system of claim 12, wherein the filter comprises a semi-permeable membrane.

14. (Withdrawn) The system of claim 13, wherein the filter is configured to allow the flow of ions across the filter.

15. (Withdrawn) The system of claim 13, wherein the filter comprises a porous mesh.

16. (Withdrawn) The system of claim 13, wherein the filter comprises a polymer

17. (Withdrawn) The system of claim 13, wherein the filter comprises a screen.

18. (Withdrawn) The system of claim 13, wherein the filter is configured to sequester albumin
19. (Withdrawn) The system of claim 13, further comprising an anti-clogging agent.
20. (Withdrawn) The system of claim 19, wherein the anti-clogging agent comprises coatings which prevent adhesion of proteinaceous compounds.
21. (Withdrawn) An implantable fluid management system comprising:
one or more conduits providing fluid communication between a first body cavity and a second body cavity; and
a shunt anchoring at least one of the one or more conduits to a wall of the second body cavity,
wherein the shunt is structured to regulate flow from the first body cavity to the second body cavity in response to changes in one or more predetermined body parameters.
22. (Withdrawn) The system of claim 21, wherein the shunt comprises a tubular body having a first and a second flanges at the proximal and distal ends, wherein the first flange is disposed on a side of the wall external to the second body cavity and the second flange is disposed a side of the wall internal to the second body cavity.
23. (Withdrawn) The system of claim 21, wherein the shunt regulates flow with a valve mechanism.
24. (Withdrawn) The system of claim 23, wherein the valve mechanism is a ball valve or a flapper valve.
25. (Withdrawn) The system of claim 21, wherein the one or more predetermined body parameters comprise fluid pressure in the first body cavity.

26. (Withdrawn) The system of claim 21, wherein the one or more predetermined body parameters comprise fluid pressure in the second body cavity.

27. (Withdrawn) The system of claim 21, wherein the one or more predetermined body parameters comprise chemical composition of a fluid in the first body cavity.

28. (Withdrawn) The system of claim 21, wherein the one or more predetermined body parameters comprise chemical composition of a fluid in the second body cavity.

29. (Withdrawn) The system of claim 21, wherein the changes in the one or more predetermined body parameters are detected by one or more sensors.

30. (Withdrawn) The system of claim 21, wherein the one or more conduits comprise a first conduit connected to the first body cavity and a second conduit connected to the second body cavity, further comprising a pump directing the flow from the first body cavity to the second body cavity.

31. (Withdrawn) The system of claim 30, wherein the pump is wirelessly connected to an inductive charging coil.

32. (Withdrawn) The system of claim 21, further comprising a hydrophilic coating disposed on the one or more conduits.

33. (Currently Amended) The system of claim 1, wherein the housing comprises anchors opposing rotational forces generated by the pump, and wherein the anchors are selected from the group consisting of barbed insertion pins, a screw threading defined on an outside surface of the pump, staples, adhesive compounds, one or more pins designed to be inserted into the abdominal wall, and combinations thereof.

34. (Withdrawn) The system of claim 33, wherein the anchors are barbed insertion

pins, screw threadings defined on the outside surfaces of the pump, staples, sutures, adhesive compounds, a porous material promoting interstitial cell growth, one or more pins, or combinations thereof.

35. (Previously Presented) The system of claim 1, wherein the housing comprises a material promoting fibrotic ingrowth into the housing.

36. (New) The system of claim 1, wherein the one or more anti-infective coatings are provided on the housing.

37. (New) The system of claim 1, wherein the one or more anti-infective coatings are selected to prevent an adhesion of bacteria to the pump.